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Exploring decision making by occupational therapists in a school setting

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EXPLORING DECISION MAKING BY OCCUPATIONAL THERAPISTS IN A SCHOOL SETTING

BY

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ABSTRACT

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Occupational therapists working in schools make many decisions regarding evaluation and services to support a student's special education. Six school-based occupational therapists from the Midwest shared, through interviews, how they chose assessment methods and tools for a particular student and how their evaluation findings were used to make service delivery decisions for that student. This group of therapists addressed team members' concerns, focusing on how sensory processing, handwriting, and functional skills influence a student's schoolwork performance. Their decisions regarding assessments were determined by the needs of the student and the questions raised by the educational team. Their evaluation information contributed to team decision-making regarding services and resulted in a variety of service delivery models. The results acknowledge the linearity of thinking used by school occupational therapists.

INTRODUCTION

Occupational therapy is a related service mandated by Individuals with Disabilities Education Improvement Act (IDEA) 2004, (Pub. L. 108-446). IDEA considers occupational therapy a related service and as such is defined as a developmental, corrective, and other supportive service designed to enable a child with a disability to receive a free appropriate public education as described in the individualized education program of the child (IDEA, 2004). In a school setting, occupational therapists' role is to support a student's ability to perform schoolwork tasks, so that the student can more fully participate in all school activities. The therapist's role is to enhance the student's occupational performance. Specifically, occupational therapists are concerned about how a student expresses him/herself through written work and behavior, engages in classroom routines, and performs self-care activities required throughout the school day (Bundy, 1995; Fisher, Bryze, Hume, & Griswold, 2005).

School-based occupational therapy is currently the largest growing practice area for practitioners in the country. According to the American Occupational Therapy Association (2006), approximately one third of occupational therapists identify their area of practice as school settings. The knowledge and skill set needed to practice is different than other areas of practice (Brandenburger-Shasby, 2005). There are not currently any requirements from AOTA nor the Accreditation Council for Occupational Therapy Education (ACOTE) as to what school-based therapists should know or skills

they should have upon entering into this area of practice (Brandenburger-Shasby, 2005). Nationally, the role of occupational therapy in schools continues to evolve (Spencer, Turkett, Vaughan, & Koenig, 2006), including the theory that supports their practice, the types of assessments used and how assessment information guides decisions for services that are provided to students.

CHAPTER I

LITERATURE REVIEW

Occupational Therapy Domain and Theoretical Practice

Occupational therapists support a person's participation in life by facilitating their engagement in occupation (AOTA, 2002). The focus of occupational therapy is supporting a person do activities that he or she would like or needs to do in all areas of life, including self-care, education, work, leisure, and social participation. In 2002, the American Occupational Therapy Association published The Occupational Therapy Practice Framework that clearly articulates the profession's domain of concern, to provide a process for evaluation and intervention and to help external audiences to better understand occupational therapy's unique contributions to health care (Gutman, Mortera, Hinojsa, & Kramer, 2007). The Framework draws from established models of practice and accepted theoretical perspectives, specifically drawing from the ideas of Kielhofner (1997) and Fisher (1998). The Framework supports a top-down approach and specifically guides the occupational therapist to gather information about the client as a person. Fisher and the Framework (AOTA) described the top-down evaluation process as beginning with the gathering of broad information about the person. The therapist and the person together identify the person's strengths and problems or needs and desired goals. The

occupational therapist then observes the person doing a task that is desired yet challenging, conducting an analysis of occupational performance. Based on that analysis, the occupational therapist considers the cause of the person's difficulties during occupational performance, such as activity demands, environmental demands, and client factors, such as components of body function. Then the occupational therapist considers a range of supports and services by addressing person, task or activity, and environmental or contextual components to help the person reach their goals (Collins, 2006). The Framework provides a guiding document for all occupational therapists in all areas of practice (AOTA, 2002).

While OTIPM by Fisher strongly supported the process for evaluation and intervention outlined in the Occupational Therapy Practice Framework (AOTA, 2002), The Model of Human Occupation (MoHO) described by Kielhofner (1997) provided an important theoretical perspective regarding understanding a person and his/her behavior. MoHO is the most widely used occupation-based model in the United States and internationally (Lee, Taylor, Kielhofner & Fisher 2008). The Model of Human Occupation is a theoretical model concerned with the motivation for occupation, the patterning of occupational behaviors into routines and lifestyles, the nature of skilled performance and the influence of environment on occupational behavior (Kielhofner, 1997). MoHO conceptualizes the human as composed of three elements: volition, habilitation, and performance capacity (Forsythe & Kielhofner, 2003). Volition refers to the process by which individuals

are motivated toward and choose what they do to occupy their time. The components that comprise volition are interests, values and personal causation. For example, at school, children are motivated to play and participate in certain activities in school. Habituation refers to the repeated performance of certain activities over time. Habituation of certain schoolwork activities help a child define him or herself as a learner. More specifically, children learn habits through their dealings with school routines and structure. In schools, students are assigned their role and taught how to behave in that role by the adults and other students with whom they come in contact. Over time and with repetition of routines, children take on the role of students. Performance capacity refers to the motor, process, and social interaction skills necessary for occupational performance. Performance capacity is affected by the status of one's biological systems (Kielhofner, 1997).

Occupational therapists use the Model of Human Occupation as a foundation for overall thinking about people to consider what motivates a person, how well a person engages in habits or routines to support his/her role, and the quality of skill performance to support a person's engagement in tasks. When addressing performance capacity, particularly related to biological or neurological systems, occupational therapists may choose to use a variety of frames of reference to guide their clinical reasoning. Many occupational therapists consider frames of reference such as sensory integration (Ayres, 1989; Dunn, 1999), or behavioral frame of reference (Ikiugu, 2004). Recognizing that many

occupational therapists focus on using a particular frame of reference and address performance capacity, Hocking (2001) suggested that occupational therapists should collect data about a person's occupation as well as the underlying theoretical frame of reference that best relate to that person's occupational performance.

The Role of Occupational Therapy in a School Setting

In schools, occupational therapists use their unique expertise and skills to assist students with their learning, as well as to aid students in school related activities so that they may fulfill their role as students. Occupational therapists support academic and non-academic skills and activities including core subjects, social skills, recess, self-help skills, pre-vocational and vocational skills by facilitating access for students (AOTA, 2005). Occupational therapists work in classrooms supporting students to do tasks that the teacher has all students doing, thus supporting the students in their natural environment (IDEA, 2004). Occupational therapists not only work directly with specific students, but may consult with teachers, other school personnel, and parents or caregivers, to provide on-going support for the student beyond the time they are with the student (Swinth, Chandler, Hanft, Jackson & Shepard, 2003). However, there are many therapists who have little understanding of IDEA (Kardos & White, 2005) and its implications for evaluation or intervention.

To qualify for school-based occupational therapy services students first need to be identified as a child with a disability, who requires specialized

instruction. After the determination has been made that a child has met criteria for special education, occupational therapy can be added as a related service to assist the child in benefiting from special education (IDEA, 2004). As a related service, occupational therapists support students and the adults working with the student within the school environment to perform their necessary roles. Occupational therapists conduct evaluations, use formal and informal assessments, and observe a child's functioning in various aspects of school performance (Knippenberg & Hanft, 2003). Therapy eligibility is determined by the team working with the child, including parent, teachers and therapists (Giangreco 1995). Once it is determined that a student is eligible for services it is then necessary to determine how to deliver service most effectively to that child. Knippenberg and Hanft suggested that rather than selecting a single service delivery model for an entire school year, occupational therapists should consider a flexible model that has direct hands on intervention integrated within school activities with consultation and coaching for educational staff. Therapists who use a consultative or indirect model of service delivery can be equally as effective as a direct intervention model, and may be more cost effective for a school district (Dreiling & Bundy, 2003).

Occupational therapists facilitate functional task performance using activities that have both meaning and purpose. In a school setting, the focus of occupational therapy is to support children in the role of student so that they benefit from their education (Dunn, 2000). Decisions regarding how to support a

student's performance in school include the approach to intervention, method of intervention, and the service delivery model to be used for occupational therapy services (Dunn, 2000). While occupational therapists may use theory and/ or the Practice Framework (AOTA, 2002) to guide their thinking, when working in a school setting, they make service delivery decisions with other professional team members and parents, based on data gathered through an evaluation. Throughout the literature of school-based practice, key themes emerged regarding how occupational therapists practice in this setting. Occupational therapists are collaborative team members, especially during the IEP planning and decision-making process (Barnes & Turner, 2001; Giangreco, 1995). They should provide evaluation and intervention in functionally relevant, least-restrictive, natural environments (Swinth et. al. 2007; Giangreco, 1995); and use evidence to make decisions for intervention approaches (Swinth et. al., 2007; Palisano, 2007; Dubouloz, Egan, Vallerand, & Von Zweck, 1999; Tickle-Degnen, 2000).

It is imperative that occupational therapy services are determined not just by the occupational therapist but in conjunction with other team members including the family, educational staff and other related service providers (IDEA, 2004; Giangreco, 1995; Swinth et al, 2007). Barnes and Turner (2001) described team collaboration as the formal and informal interactive process among teachers and related service personnel for planning, developing, and monitoring of interdisciplinary interventions. Collaborative team decision making requires

shared thinking and interaction among school personnel, parents, and the student whenever possible, as well as a desire to create a meaningful and educationally relevant plan for a specific student (Knippenberg & Hanft, 2004). Decision-making with a team may be daunting. The average number of individuals on teams for children with multiple disabilities is eleven, but can range from 5 to 21 members (Giangreco, 2000). In such cases a core group of individuals is typically identified. Giangreco urged that team members define each member's role on the team, and that all team members understand the interaction between program placement and services to develop the most effective programming for students. A team must identify student needs prior to discussing services. When it comes to decision-making, consensus is generally the preferred method, although it may take longer to reach a consensus agreement (Giangreco, 1995). Giangreco (1995) stated when occupational therapists collaborate with other team members including teachers and other service providers it can have a positive impact on educational outcomes. There is a positive correlation shown between teachers' perceptions of occupational therapy contributions to skill development and collaborative team practices (Barnes & Turner, 2000). This suggests that successful educational outcomes may be influenced by collaborative efforts (Barnes & Turner, 2000). Swinth, Spencer, and Jackson (2007) promoted inter-professional collaboration on behalf of students, the use of whole-school interventions, and related services within the

regular classroom. All of these approaches support the concept of least restrictive environment.

Service delivery decisions made by occupational therapists need to be guided by evidence (Palisano, 2007; Collins, 2006). In the past, occupational therapists have used instinct and professional judgment as guiding principals for treatment but evidence based practice demands that we make decisions based on research evidence for effective practice (Swift & Hanft, 2002). Therapists need to continue to move their practice to adaptive occupation and consultation because remediation is too time consuming and has limited functional outcomes (Fisher, 1998). Swinth, Spencer and Jackson (2007) reported that occupational therapists working in schools use a variety of strategies, techniques, and interventions that are supported by evidence. They cited interventions ranging from using certain approaches to handwriting to using sensory integrative based equipment in the classrooms. Furthermore, Dreiling and Bundy (2003) found that therapists who use a consultative or indirect model of service delivery to be equally as effective as those who use a direct intervention model. Additionally, they reported that the consultative model is more cost effective for a school district. (Barnes & Turner, 2000; Swinth & Hanft, 2002; Spencer, et. al, 2006).

Assessments Used by Occupational Therapists in Schools

The first step in the occupational therapy process is assessment. Assessment guides all that we do as it becomes the focus of the intervention that will follow. When assessing students, Hocking (2001) urged occupational

therapists to analyze assessments to determine whether they collect data about occupation and how well their underlying theoretical framework relates to occupational performance. The Occupational Therapy Practice Framework (AOTA, 2002), as well as the Model of Human Occupation (Kielhofner, 1997) and the Occupational Therapy Intervention Process Model (Fisher, 1998) provide clear guidelines regarding the evaluation process and the types of information to gather. All three begin evaluation by learning about what is important to the person. Fisher advocated first learning about the person's desired and needed tasks, as well as perception of how he/she does in these tasks. This is similar to the volitional subsystem, described by Kielhofner. *The School Function Assessment* (Coster, 1998) is one tool that allows the occupational therapist to gather information from teachers on a student's participation in various school settings, the amount of support that a student requires in the school day, and how the student performs the school tasks required of him or her. Students themselves can provide information on their own behalf. Those who have input into their own evaluations can facilitate successful therapy outcomes. *The Child Occupational Self Assessment (COSA)* is a self-report, based on MoHO, that can be effectively used with students in a school context (Basu, Jackson, & Keller, 2004; Harney & Kramer, 2007). The *COSA* is designed to capture children's perceptions regarding their own sense of occupational competence and the importance of everyday activities. The assessment can be delivered through a series of card sorting or by having the child complete a questionnaire with the

occupational therapist. *The Pediatric Volitional Questionnaire (PVQ),* used with ages 2 through 7 and the *Volitional Questionnaire (VQ)* (Kielhofner, 1997) are observational tools that provide information regarding a child's volition in the context of his or her environment, examining both motivational traits and environmental factors that effect volition (Basu, Jackson, & Keller, 2004). The occupational therapist observes the child in several different environments and can use the *PVQ* or *VQ* assessment results to support the child's participation in a variety of occupations.

Based on the OTIPM (Fisher, 1998) and the OT Practice Framework (AOTA, 2002), the next step in the evaluation process is to observe a person performing desired tasks, conducting a performance analysis. Fingerhut et al (2002) asserted that occupational performance in a naturalistic setting may not necessarily correlate highly with assessment of performance components in the clinical or pull-out setting. Occupational therapists may observe a student in the classroom or in other school environments using their clinical judgment. Fingerhut et al proposed using the School Assessment of Motor and Process Skills (School AMPS) as an effective tool to identify quality of performance, as opposed to underlying body function. They proposed that observing performance during real schoolwork tasks can then lead to effective intervention to support student role performance. They further emphasized that occupational therapists in school–based practice need assessments that evaluate occupational performance so that they can provide service from an occupational

perspective. Fisher, Bryze, Hume, & Griswold (2005) noted that the *School Assessment of Motor and Process Skills (School AMPS)* provides the only standardized tool to assess a student's performance of schoolwork tasks. The *School AMPS* is a criterion-referenced tool that assesses the quality of a student's motor skills and process skills when doing schoolwork tasks such as writing, drawing, or cutting and pasting.

The Occupational Therapy Practice Framework (AOTA, 2002) outlined assessing a person's body function after the performance analysis in order to better understand the person's difficulties and needs. For students, body function that might interfere with schoolwork performance might be sensory processing, gross motor, fine motor, or visual-motor abilities. According to Burtner, McMain & Crowe (2002) most occupational therapists working in the southwest choose five assessment tools to address these areas. They reported therapists use the *Peabody Developmental Motor Scales (PDMS)* to assess gross and fine motor abilities for children birth through five years; *The Bruininks-Osteretsky Test of Motor Proficiency (B-O TOMP)* to assess gross and fine motor abilities for children 4.5 through 14.5 years old; The *Beery Buktenica Test of Visual Motor Integration (VMI)*, to assess visual motor abilities for children two through eighteen years; *Ayres Clinical Observations*, to assess sensory-motor integration; and the *Motor Free Visual Perceptual Test (MVPT)*, to assess visual perception in children ages four through adulthood. In addition to the tools mentioned above, occupational therapists often use the *Sensory Profile* to

measure sensory processing ability (Dunn, 1999). Interestingly these assessment tools all assess body function, not volition, performance patterns, or performance skills as suggested by theory and the OT Practice Framework (AOTA, 2002).

It seems that there are many assessment tools that support a theoretical, top-down perspective on practice. However, those reportedly used by occupational therapists do not match the top-down approach but focus on body function. Kardos and White (2005) suggested that therapists may lack familiarity with the application of standardized assessment tools that measure functional occupational performance to the educational setting, as well as tools designed to assess transition planning areas. Perhaps therapists do lack familiarity with a wide variety of assessment tools that support occupation-based practice. Or perhaps therapists are not thinking from theoretical perspective. Perhaps they do not realize the implications that assessment has on intervention.

This research study was designed to explore how occupational therapists choose assessment methods and tools and how they use assessment information to make decisions for students in a school setting. The specific aims of the research are (1) to understand how occupational therapists use assessment data to make decisions for occupational therapy services, (2) to understand how the team of other professionals influences occupational therapy service decisions, (3) to explore how a therapist's theoretical orientation

influences decisions for services, and (4) to explore if and how the use of specific assessment tools influence decisions for services.

CHAPTER II

METHOD

The research conducted was a qualitative design approach that utilized multiple cases within a case study. According to Creswell (2003), key to qualitative research is that it is interactive and humanistic and should take place in a natural environment. With this in mind, the interviews took place in the therapists' homes or offices. The therapists were asked to reflect on the special education evaluation process for one student that they had worked with and answer open-ended questions regarding their team experiences revolving around that student.

Nine occupational therapists were asked to participate in the study from a group of approximately 20 therapists working for, or associated with, an urban school district in the Midwest. Six respondents were available and willing to participate. The occupational therapists interviewed had a range of experience as an occupational therapist, from 4 years to 30 years. Their years of experience in school-based practice were similar to their years of overall occupational therapy experience, with a range of 4 to 26 years. Five had nearly two decades of experience or more working in schools and one was relatively new to occupational therapy practice, with only four years experience. Hence, the group

of therapists interviewed was very experienced and furthermore, had worked through the many changes in federal legislation and resulting evolution of occupational therapy practice in schools. In fact they worked through three reauthorizations of IDEA. The therapists reported serving students with a wide range of disabilities and needs. Nearly all of the therapists described working with individuals with autism spectrum disorders, attention deficit disorders, fine motor dysfunction, learning disabilities, developmental cognitive delays, traumatic brain injury, and a number of other developmental disabilities related to neurological impairments. The majority of therapists work with students ranging from early intervention to transition age with one working primarily with transition-aged students.

Therapist Interviewed (pseudonyms)	Yrs. of Experience	Yrs. School Based- Practice	Highest Degree of Education
Chris	30	17	BS
Pat	4	4	MS
Amy	28	22	MS
Teresa	27	19	BS, MFA
Kelly	28	26	BS
Lisa	21	20	MS

Each occupational therapist was interviewed individually at a place of convenience during the summer school break. The interviews conducted were approximately 60-90 minutes in length. The interviews were audio-taped and transcribed. This study was approved by the University of New Hampshire IRB (Appendix A).

Interview Focus

The occupational therapists were asked to think about a student whom they had evaluated and base the interview discussion on that student. They were then asked to share their thinking process with the researcher. Interview guiding questions (Appendix B) were used to keep the interviews similar and focused. As the therapists shared information further probing was used to gather additional and richer information. Therapists were asked to first share the referral information they received about the student. Based on the referral information, the therapists were then asked to tell what assessment tools they chose to use in assessing the student, why they chose those tools, and what information they hoped to gain from them. Next, the therapists were invited to share how they had planned on using the data and who was their target audience for their reports. The therapists explained the team decision making process for the student whom they were focusing the discussion. Finally, the therapists discussed their perspectives regarding how the decision-making process went, what intervention was provided (if any) and any additional thoughts or feelings regarding the assessment process.

Data Analysis

Creswell (2003) described the data analysis as an ongoing process involving continual reflection about the data, asking analytical questions and writing memos throughout the study. It involved using open-ended data which began with asking general questions and developing an analysis from the

information supplied by the therapists. The case study approach involved the details supplied by the therapists regarding the special education referral, decision making, and intervention processes.

After the interviews were completed and transcribed, two of the occupational therapists interviewed reviewed the transcripts of the interviews and expressed that the transcription accurately reflected the information they had shared. The information was examined and then summarized by the researcher. Guidance was then given to the researcher by the thesis advisor to organize the analyzed information into themes. Themes were initially grouped into four outcome areas (focus of evaluations, evaluation methods, sharing of functional information, and team decision making); later, the areas of focus of evaluation and evaluation methods were combined because there was significant overlap between the two areas, data were cross-coded and overlapped. In addition, two therapists that had not been interviewed or involved in the process were asked to review initial drafts of data analysis and give feedback to the primary researcher. Multiple edits and revisions were completed as a result of the feedback from the two therapists and the thesis advisor. The analysis was expanded during each revision, with greater emphasis on clarity of interpretation.

CHAPTER III

RESULTS

The intent of the research was to explore school-based occupational therapists' clinical reasoning. In particular, the study explored how the therapists chose assessment methods and tools, and how they use assessment data to make decisions for students in a school setting. Three themes emerge based on including (1) decision making for evaluation methods, (2) sharing of functional information, and (3) decision making as a team. Each of these will be are discussed in detail below.

Decision Making for Evaluation Methods

Four of the therapists discussed students for whom they had received a referral for an initial evaluation. Two therapists selected to discuss students for whom they did reevaluations as part of the three-year reevaluation process. The referrals were the result of team decisions that the therapists were a part of and the others were referrals without the therapist present. Based on the referral, a file review, observations, and/or a discussion with the classroom teacher or team members, the occupational therapists made decisions regarding the tools used.

Kelly reported that she divides the assessment tools into two categories, formal and informal. She stated that the value of the informal information was

more influential in her clinical decision-making than the results from formal assessment tools.

> *Well, (I use) lots and lots of observation. Now the assessment tools that I used when assessing students, I kind of categorize my assessment process into two main headings: the informal strategies and the more formal types of evaluations. In this case there was probably 90% of the information that I was able to compile and analyze on this student was from informal source: the record review, the staff interview, the observations, even the student interactions that I had with her, my sort of diagnostic interplay socially and during different tasks helped me to kind of gauge what she was going to do, what behaviors were maybe related to what reasons.* (Kelly)

After the therapists' discussions with team members and review of files they chose to evaluate three major areas that occupational therapists look at: *sensory processing, handwriting,* and *the student's functional ability as a learner.*

Sensory Processing. While considering the sensory processing functions of the child, therapists approached the assessment of this area in different ways. One way they examined sensory difficulties is through use of the *Sensory Profile*, which is typically completed by the parent or teacher. *The Adolescent/ Adult Sensory Profile* is a self-assessment tool which can be used with individuals 11 years and older. Also available is the Sensory Profile *School Companion*. Kelly described how the team members concerns about the child influenced her decision to use the *Adolescent/Adult Sensory Profile* and how she administered it. She needed to adapt the way she interviewed her student and it needed to take place over several sessions given her student's limited communication skills and ability to remain on task:

> *My role as an OT was to try to help the team tease out what might be contributing to what behaviors. So they said, we think she's got sensory disturbances, can you help us identify things that might be going on with her, that might account for certain behaviors? And then, of course, if I can do that, what do we do about it? ... I chose to do with her given her age, was a Sensory Profile. And I asked for two sources of information. One was from staff who worked with her to get a gauge of their perceptions of what might be going on, and this student was high enough in terms of her physical and verbal ability that I believed she could participate with me in evaluating herself.* (Kelly)

Lisa's decision to use the *Sensory Profile* was similar to Kelly's in that the team wanted to know whether observed school behaviors interfering with the student's functioning were sensory in nature or whether there was possibly another cause. Lisa's experience and clinical judgment guided her to the use of this tool.

> *Try to tease out a little bit of how much of his apparent sensory issues were actually sensory processing versus just disorganization. ... Does he need (sensory) input? Does he need breaks?... What kinds of sensory issues are there really? ... Figuring out what he needs to help make him more successful.* (Lisa)

Chris decided to use a different approach to determine why her student was behaving in a certain way. She knew from a previous assessment that the student had tactile issues, but decided to delve deeper as to what might be the cause of the student biting himself. She decided to use a motivational scale to try to determine where the underlying behavior may be originating, as well as a sensory checklist that the family and teacher would fill out.

> *I had done a limited file review, participated in teamings, and done some observations...I was most concerned about...biting*

> *behavior. This student would bite his arm.... It did seem to interfere with his participation in school activities. The instrument that I chose to use is called the Motivation Assessment Scale.... I chose that instrument, because I thought it would help me to get a better understanding of the motivation for biting. I knew that this student had some tactile issues and I think in the past it would have been easy to assume that his biting was a reaction to tactile but I did want to be sure... In addition (I used) a sensory checklist that the teacher and family would fill out.* (Chris)

Sensory processing was discussed by four of the six therapists. Even though it was not always an area that was assessed, it was an area that was considered in how the student functions at school.

Handwriting. Handwriting was another area that the therapists chose to assess based on the referrals and functional writing concerns from team members. Everyone who targeted handwriting for their assessment observed the student writing, either in the classroom, or writing a passage required by a given assessment tool. While handwriting was the focus of the assessment, this group of occupational therapists also assessed aspects of body function that supported handwriting.

Pat decided to use a variety of methods to assess handwriting, and described using both a standardized assessment as well as observations of the student as she wrote in her classroom. She noted the research supporting the use of The *Beery Buktenica Test of Visual Motor Integration* (VMI) as an assessment tool, demonstrating her use of evidence-based practice and how she believed it correlates with handwriting. She thought it was important to know how the student was functioning in the classroom and also decided it was best to

observe her doing a handwriting sample in the natural classroom environment. Pat is making sound research-based decisions, which is different than the other therapists interviewed. Pat is most recently out of her occupational therapy education program and has a different perspective on the role of occupational therapy in schools. Her perspectives and concerns are possibly different because of her education which may have focused more on occupation-based practice than the education that the other therapists received approximately twenty years ago.

> *I wanted to do the VMI. I also did a short handwriting screen, an observation in the classroom during the journaling time and also a look at her classroom work that she was doing. I guess they're the ones that I feel relate the most to what the teacher said the student was having difficulty with. And from what I understand of research the VMI most closely relates to handwriting performance, so that's why I chose that one. And I know the shorter handwriting screen is just a screener but I think it's a nice tool to just give me a little sample of the different areas in their work. Plus, it's a nice observation guide because it has how are they seated at their desk, what hand do they use, do they have a mature grasp pattern, what's the environment like that they're writing in. So it just keeps kind of your observation in guide and in check as well...I wanted to know skill-wise where they were at but I also wanted to know what motivation was like, what the environment was like for learning, for their attention and problems during that time. Those were just ways for me to see her in her natural writing environment.* (Pat)

Even though Pat focused her assessment on handwriting, as she continued to talk about handwriting, she seemed to have a different outlook on assessment than the other therapists. She is not as concerned about how a student writes, as long as he can do it. She is much more concerned about the other aspects of what occupational therapy can offer in a school setting.

When I was in school the thing that always stuck with me was that our teacher said, " with handwriting, does it really matter if you start your 4 in this corner, if you can make a 4 and if you can make it in the same guidelines as everyone else." You know it's true. I look at other people's handwriting and my husband's and I think you probably would have had OT...But he's fine...and he does well and sometimes we get so caught up in that and it's like some of these kids. I don't know what it does to their esteem that we're working on the letter D.... I just guess I want more of a broader scope for OT in schools in general and I just don't know if its just my district because it's the only district I've worked in. (Pat)

Teresa chose to use the *VMI* with her student based on team concerns which included poor handwriting and poor written expression. Her observations and a file review supported her decision to use this evaluation tool.

I didn't receive hardly anything on this student, except that she seemed to have motor incoordination and handwriting problems...and that was given to me just verbally...She had poor written expression and poor handwriting, poor organization, she was emotionally somewhat volatile, she was visually distractible.... She's a really likeable kid...and she seemed to be able to read and verbally express herself somewhat well, but she just wasn't getting school-work done very well... I wanted to look at, even though she seemed to be reading okay, I wanted to look at visual perception. So I did the TVPS.... (And) a test that I don't use very often is the Learning Efficiency Test, but it looks at short-term and long-term memory...I wanted to do that with her just because of the TBI (traumatic brain injury) and the memory problems that they can have... She seemed to have poor handwriting, in just about every respect so I did the VMI on her as well. I did a lot of informal handwriting stuff with her. I also did some informal keyboarding assessment just to see if she was somebody who could isolate her finger movements. (Teresa)

Teresa analyzed a variety of areas that influence handwriting as well as other aspects of schoolwork performance. In addition to assessing visual motor integration Teresa assessed visual perception and memory, which are skills required for writing. Lisa also assessed body function that supports handwriting

with the student with whom she was working. Lisa focused on the fine motor abilities as well as visual perception. The team had expressed concerns with this student's motor control along with a great deal of concern regarding the student's handwriting ability. Given the team concerns, Lisa wanted to assess handwriting. However she also wanted to look at visual motor abilities in a greater context than just pencil and paper tasks so she chose a new tool to her that would look at those skills and break down the components of visual motor integration.

> *He had a lot of issues with motor control, mostly fine motor control...he had huge handwriting issues, sensory issues, sensory processing and modulation issues, so I was looking mainly at the fine motor and the sensory, and sensory-motor with him. I used the Evaluation Tool of Children's Handwriting.... I wanted to look at different aspects of the handwriting. I wanted to look at visual perception and, the actual fine motor manipulation. I also used the Wide Range Assessment of Visual Motor Abilities (WRAVMA). I've been trying out that assessment because of the peg board part of it since this was new and we just got it I wanted to get to use that. Also it had a different kind of visual perceptual test that looked at visual perception different than the TVPS (which) is super long and this kid is 2nd grade and (has) a short attention span would never have gotten through that. This is shorter and I thought that would be a better.... At least get him through the test and get some kind of accurate information...the ETCH...he couldn't really perform the whole thing. But at least it gave me some format to kind of go through. He was a reader, but he couldn't write at all... and so I wanted to kind of break it down a little bit.* (Lisa)

While Lisa considered the body function that she wanted to assess, she was also very aware of the student's ability to complete a given assessment tool that she had available to use. Because of this student's limited ability to stick with a standardized assessment, Lisa used it in a non-standardized way to gather information about his performance.

Based on team concerns Amy decided to assess handwriting using the *Children's Handwriting Evaluation Scale (CHES).* Her choice for using this assessment tool was related to its ease of use and the tool's ability to identify handwriting quantity, speed, and quantity in a short amount of time. Her observations of the student also included observing him in his natural environment and how he functioned there.

> *There were some concerns about his handwriting and some fine motor issues so then I said I could do the CHES, just a handwriting sample and, after observing him maybe I'd have a little bit clearer idea.... It's on lined paper and you copy it in 2 minutes and it's (a) standardized test for grades 1 through 6.... Its standardization comes out pretty similar to the ETCH or a couple of the other ones. What I like about this one is that it's a very simple passage. It's a set passage and it looks at quantity, speed, and quality, and it breaks down quality pretty quickly.* (Amy)

The therapists looked at a student's handwriting both through observation as well as using standardized measures such as the *Evaluation Tool of Children's Handwriting (ETCH)* and the *Children's Handwriting Evaluation Scales (CHES)*. They also assessed body functions that support handwriting. Their reasons for choosing the assessments that they did was based on considering the information that they needed to better understand the difficulty that led to poor handwriting, the student's own tolerance for the length or demands of a given assessment, as well as the therapist's own preference and familiarity of assessments available.

Functional Skills. In addition to assessing the students in the areas of sensory processing and handwriting, the therapists examined student functioning within

the school environment. The role of the occupational therapist in the school district is well articulated by Kelly as she described how occupational therapy can support a student by working with an individual student as well as providing services to the entire team.

> *The district service delivery model is one where services from an occupational therapist are considered part of the special education array of services that are available to students and we're defined as being a related service. So as such, what we do as OTs should support the primary educational, special educational program that students receive. It's our job to be a resource and a support to students who have a variety of educational disabilities and needs, associated needs that their disability impacts their school performance. So within our scope of practice we look at what it is that we bring, a set of knowledge (and) skills and translate that information to the child's occupational performance in their role as a student. Within that role there is a spectrum of what we can do service wise. We can function in a capacity of helping the team know more about the student through assessment; we can function as a liaison to the team, which includes parents and families, where we try to connect people with information and resources that they need to better serve the kid; we can share ideas and techniques with those people; and we can also work directly with that student on techniques that will help them be better as a student.* (Kelly)

Kelly clearly acknowledged the range of roles that occupational therapists can have to support a student in school, from working with the student, to helping the team understand the student, to connecting team members to other resources. Taking on many roles enables occupational therapists to address a range of functional skills. Teresa focused on her role in helping the team know more about a student through assessment. She did observations of the student in the classroom and in other school environments to determine student needs

and shared her findings to help team members see the student's behavior in an objective way.

> *Well, the first things that I did were read her file and then observe her a little bit. She had poor written expression and poor handwriting, poor organization. She was emotionally somewhat volatile; she was visually distractible. I gathered all this just from looking at her in the classroom… decreased attention, she seemed to have boundary issues, like just would invade other peoples' space and usually it was positive it wasn't always negative. She would just run up and hug the stuffing out of you and stuff like that. (Teresa)*

The observations that Teresa provided give a sense of the depth of knowledge that occupational therapist can bring to a school team. Teresa described her role as an advocate to help the team understand the significance of the student's memory deficits. She decided to administer the Learning Efficiency Test based on the team's level of knowledge in working with students who have had a traumatic brain injury. She wanted to illustrate to the team what a crucial part memory plays in functioning within the classroom and how the student's behaviors were related more to the student being unable to perform the task rather than her unwillingness to do it.

> *I did a history with the mother, looked at her developmental milestones, and just how she did at home with self-care and organization.... I also asked a lot of sensory questions, but decided not to do a formal sensory assessment on her because that really didn't seem to be her issue.... with the Learning Efficiency Test, the memory one, part of why I'll choose to do that on occasion is, even if a full psych is being done… having a whole test just devoted to memory seems to help drive home for people that aren't familiar with dealing with something like that, how big of an issue that is for this type of a kid, so it almost was a advocacy.* (Teresa)

In helping the team understand this student's difficulty, Teresa recognized that she had a role as an advocate for the student. She focused her assessment on understanding the student's learning style so that education could be based on his strengths. She described completing extensive observations with her student and assisting the team in understanding that the student's difficulty in functioning within the classroom may be a medically related problem. She chose to also administer the Learning Efficiency Test to evaluate the learner's classroom functioning.

> *I did go back and do the Learning Efficiency Test. Just because what amazed me was as he would fall asleep and would look like he'd kind of doze off and he'd wake up again he would look around and he'd get cues and get visual cues from his peers and the environment, and he wouldn't get so far behind on getting his work done, and staying kind of caught up. He was working hard at doing that and I wanted to get kind of an idea if he was more of a visual learner or auditory learner because if he was going to continue having these problems we'd need to play to his strengths. And he came out to be more of a visual learner, so they could give him written directions.* (Amy)

These three therapists all described evaluating component skills necessary for school functioning with standardized tests such as the Learning Efficiency Test. They also based their assessment choice on teacher/ team reports and observation to determine what they needed to know to better understand how a child functions within the classroom. Additionally, they used their assessment to help the team see a different perspective of the student.

Sharing of Evaluation Results

Once occupational therapists have completed their assessments, they need to share that information with their colleagues. Each of the therapists in this study described the information they shared with their respective team members. However, all remained focused on how to best support the student. Two therapists summarized their assessment findings for their respective teams and shared their students' functional limitations and described the impact these had on the students' performance within the classroom. Chris described behaviors and communicative intent while Kelly described the impact of memory and poor organization.

> *I tried to summarize the information that I felt would be most helpful in helping the team understand the broader reason for the student's biting behavior, shifting from a focus on possible tactile defensive types of concerns into more communicative intent of behavior type of concerns.* (Chris)

> *I think our main focus was that there are really significant underlying reasons why you're seeing what you're seeing in the classroom and that the programming needs to look at ways of accommodating and adapting to help her learn. I should mention too that actually intellectually, if you parsed out, if you took the memory and some sort of poor organization of thought and stuff, she actually had a relatively high IQ and had some nice abilities.* (Kelly)

Chris and Kelly helped team members understand the students' behaviors and also the students' strengths or abilities. Understanding a student seemed to be only the first step in sharing information. As Kelly stated, she wanted to identify approaches to accommodate for the student's disabilities. Pat also

discussed her plan to use the information she gathered from the assessment in making recommendations for classroom accommodations and functioning. She further shared that the information would be valuable in writing goals and objectives for the student.

> *I was planning on using it in a discussion in our share meeting. I was planning on using it for suggestions for in the classroom, as well as for planning for myself, as well as for goal and objective ideas.* (Pat)

Therapists use data to guide intervention. It can be used to write goals, accommodations and modifications based on classroom functioning and student needs. Pat and Teresa expressed how the information gathered guided their intervention.

> *I think it gave me a guideline, kind of, where the student was at in my eyes, in that area, and what factors may contribute to it, and kind of just a baseline of where we want to go from.* (Pat)

> *Definitely to influence a lot about how she was taught in the classroom and what the goals and objectives would be and program planning and goal setting.* (Teresa)

As Pat continued to talk, she further expressed the importance of not only identifying the student's needs or challenges but also to emphasize the student's strengths as well as what motivates her.

> *I focus on challenges, but I also focus on her strengths. I like to bring up that, you know, the teacher reports and I can see her beautiful artwork in the hallway. I can see that she's motivated to try and write. I can see that she's watching her peers and she's friendly, a delightful student. I also try to put in there that she has some challenges and but that we can work at them as a team effort.* (Pat)

Occupational therapists bring a unique perspective to school teams with their background and training. They offer a link between school functioning and the medical community. Occupational therapists can be a bridge between the educational team and physicians making a difference in the student's life. Amy's observations were instrumental in providing information to the physician, which helped guide him to make a diagnosis and explore treatment options. Overall, this helped the student's functioning in school.

> *Well, the team wanted to use it (OT assessment findings) to talk to the mother again about what was going on and I was asked then to call the doctor and share it. And I did talk to the doctor and shared it. I just said what kind of concerns there were and what they looked like…. He would move around and fidget a lot, I said, but he totally lost muscle control at times and he just would give out. I said he was falling asleep. He just couldn't stay awake. I also talked about how his face would change, and one of the things I observed too when I observing him was that he chewed on his fingers nonstop and the cuticles, and picking at them and about midday I finally went up to him and said, "Can I see your hands?" because I was sure they were going be bloody. There wasn't a mark. So he was doing all of this mouthing and fingering and stuff and he wasn't chewing them, it was just another way of trying to keep himself awake. And those are all signs of narcoleptic children that I didn't know about until the doctor told me, after I talked to him for a while.* (Amy)

Amy's conversation with the student's physician led to a diagnosis as well as understanding of the student's behavior. It was Amy's observations of the student functioning within the classroom and her ability to share that information which assisted the physician to consider a diagnosis. Amy was able to see a different perspective than other team members. Teresa provided another but very different example of seeing an alternate perspective from her team

members. She shared how she advocated for her student to be in the least restrictive environment, an environment in which she was not currently.

> *Part of what I did on that team was to advocate for her too ... was to say we need a plan for getting her back to a regular school because she's... in need of a lot of services but I think she could be supported in a more regular environment and it doesn't need to be in such a segregated environment. She just needs to be looked at with a different set of eyes not that EBD (emotional-behavior disability) framework. And, nobody really opposed that. They didn't think it was a good idea to do that very soon, and neither did I, because we needed to get her a lot more stabilized and know what worked with her, but eventually, everybody was really on board with that, including the school psychologist.* (Teresa)

Overall, therapists used the information that they gathered regarding student's functioning in different ways. The information the therapists gathered regarding functioning allowed therapists to add to team conversations regarding student strengths and needs. In addition, the functional information assisted the therapists in providing the team information regarding the student's necessary accommodations, goals and objectives, and service needs.

Decision Making for OT Services as a Team-

Once the occupational therapists share their assessment results with other team members, and listen to evaluation findings of these team members, they collaborate to determine services for the students. Therapists discussed being asked to be members of teams to assist teachers with students. The skill set the occupational therapist has to offer effects what the team asks her/him to do. The amount and duration of occupational therapy services was determined by the

occupational therapist in conjunction with the team. Depending on the other services, as well as the student's goals and objectives, the occupational therapist collaborated with other team members to determine how the student would best be served. Decisions ranged from supporting staff in a consultative manner, consulting only as needed, to providing intensive direct services.

Chris explained how she was going to support school staff, using her expertise around sensory processing, offering consultation and monitoring of the student's sensory needs.

> *We plan on continuing to consult and monitor his sensory diet at school. And I would continue to work with his staff regarding his sensory defensive issues. I would draw on the expertise of the communication and autism professionals to help us with this student's need to express himself, to express his communicative intent without using biting. (*Chris)

Chris acknowledged that she had an expertise to offer but also described collaborating and deferring to other professionals on the team to address the student's needs around communicating which result in his problematic behaviors.

Amy chose to not provide any occupational therapy service the student she evaluated. She described how she often is asked by the team to remain available for the team in case there were additional needs later.

> *The matter became part the IEP team ...and I didn't pick him up...So, as a team we decided he didn't need occupational therapy services... They pretty much, in that district, ask me what I think...And there's been, there's been a couple times where they've said, "We would feel better if you would stay involved, can you just stay on to consult us?" and I'm just like sure. I can do that.* (Amy)

On the other end of the continuum of service delivery, Teresa remained involved with her student's programming, providing both direct and indirect support and acting as a liaison between the teacher and the other individuals that worked with this student on a daily basis.

> *Her services were pretty intensive. The 'Other Health Impaired' teacher was going to be on the IEP but a really minimal amount of time, so I really felt like OT needed be the person to pick up the ball and be a liaison between that teacher and the people that were there everyday with the student. And I did a lot of things, I planned on consulting every week in the classroom on a lot of stuff, like we had the organizational system in place, my own self-regulation thing because they already had something going in the classroom but I wanted to consult on things like helping them make it be more visual and not just verbal.* (Teresa)

Teresa described providing consistent direct and indirect services to the student throughout the school year. Kelly expressed how she remained involved with the student but described a flexible service delivery throughout the school year. It was based upon how the student might change and what the staff needed from her to help the student be successful in school. This presented a challenge regarding how to specify the frequency of occupational therapy services on the state forms.

> *The team agreed, there was nothing specific that I could or should do with that girl just her and I, or face to face, or me touching her that would make a substantial difference in her life or change her behavior for the better. What I would do with the girl would be very similar to what everyone else is doing with the girl. What they wanted me to do was to continue to help monitor the girl. Come in and check periodically to see how she's doing and how staff are using strategies to support her behavior. They wanted me to interact with her occasionally to try those interventions personally to make sure that I was getting a real accurate read on it. And by all means, they wanted*

me to be available for regular teamings that they do once a month, we're going to talk about this kid. What are some of the problems that have come up that they needed my input on....On the boxes [on the IEP form] of service, we had decided that OT would remain a monthly consult for 30 minutes a month, a minimum of once per month. The team acknowledged that that was minimum knowing full well that the a service would be fluctuating probably more than that depending on what the needs were on a day to day, month to month basis. And we agreed that the boxes would say that as our minimum. Under the accommodations section, what we wrote is a descriptor of how OT would be involved. (Kelly)

Kelly described resolving the dilemma of how to document her services by determining a minimum amount of time that she would provide occupational therapy on behalf of the student. The team that Lisa was working with also decided that providing flexible occupational therapy services would best meet the needs of the student. The needs and approach were a bit different from those of Teresa. Lisa began by providing direct service to the student and then shifted to a consultative model later in the school year.

We decided on, a mainly consultative model with some, some short-term direct to start with, like a six-week thing for next year to start with we just did this up at the end of the year...and mainly with the handwriting the sensory stuff would be a part of that too just establishing a, a routine, and then once he got things in place with the handwriting then I would go more to a consultative. (Lisa)

The occupational therapists described making decisions with the team that resulted in using a variety of service delivery models based on the student needs and who the service providers would be.

CHAPTER IV

CONCLUSIONS

Decision-making in a school setting, as described by six occupational therapists is not a straight-forward process. The therapists who participated in this study discussed their thinking process for a student. In doing so, they reported on the assessment tools they chose, how they shared that information with the team and how the team used that information to make decisions for the student. In schools, occupational therapists use their unique expertise and skills to assist students to be prepared for and perform important learning activities, as well as to aid the student in school related activities so that they may fulfill their role as student. This was evident from the group of therapists interviewed, with their assessment of school-based skills such as handwriting and functional behaviors in the classroom. Therapists working in school-based practice use a variety of evaluation tools and skills. One of the most frequently used methods described by this group of therapists was observation. Several of the therapists stressed the importance of completing their observations in a natural environment which support current best practices and follow legislative guidelines. Whether using a structured or unstructured observation, therapists value the information received from observation of their students. Therapists used a variety of standardized and non-standardized tools to complete their

assessments. The three common areas assessed by therapists were sensory processing, handwriting and functional skills.

These therapists discussed sharing assessment results with other team members with the focus of supporting the student. Therapists in this study described helping team members understand how a student's limitations influenced his/her school performance. Therapists in this study also described advocating for the student, often by highlighting the student's strengths. The decisions for services were made in collaboration with the student's team. The team considered the needs of the student and the expertise of teachers and staff. As a result, the occupational therapists in this study reported offering services ranging from consultation to intensive direct service.

CHAPTER V

DISCUSSION

The purpose of this research was (1) to understand how occupational therapists in a school setting use assessment data to make decisions for occupational therapy services, (2) to understand how the team of other professionals influences occupational therapy service decisions, (3) to explore how a therapist's theoretical orientation influences decisions for services, and (4) to explore if and how the use of specific assessment tools influence decisions for services. In general, the six occupational therapists interviewed for this study articulated their perceived role in a school setting along with their reasoning regarding assessment and service delivery decisions, addressing the first and fourth research question. The therapists described their evaluation approach for one particular student and articulated how they choose assessment focus and specific tools. This group of therapists focused their evaluation methods to address the questions that the education team had around a student's performance in school. This particular group of six occupational therapists focused on students' academic performance and how client factors might hinder students' performance in the classroom. Specifically, this group discussed the influence of handwriting and fine motor skill, sensory processing, and executive functioning. They based their focus on the skills or body function that the team

had determined was problematic. This is different from the occupation-based, top-down approach outlined by the Occupational Therapy Practice Framework (AOTA, 2002). Rather, this group of occupational therapists followed the lead of their other professional colleagues and honed in on body function. Furthermore, they did not discuss other non-academic areas of a student's occupational performance such as self-help or pre-vocational skills. They did describe using both formal and informal assessment methods, as Knippenberg and Hanft (2003) had suggested. Informal assessment for this group of therapists included observation of the student in class. Formal assessments included standardized assessment tools that focus on handwriting: the *Children's Handwriting Evaluation Scales (CHES)* and the *Evaluation Tool of Children's Handwriting (ETCH)* or body functions that support this skill such as the Test of *Visual Motor Integration (VMI)*, *The Wide Range Assessment of Visual Motor Abilities (WRAVMA),* and *The Test of Visual Perceptual Skills (TVPS).* They also reported using the *Sensory Profile* and *The Motivation Assessment Scale* to respectively examine sensory processing, a body function, and to consider motivation for sensory behavior. Two of the therapists reported using the *Learning Efficiency Test* to assess memory and to determine the type of sensory information that supported the student's learning, again focusing on body function. While the assessment tools used by this sample of six occupational therapists are different from those reported by Burtner, McMain and Crowe (2002), who had surveyed occupational therapists in the southwest, respondents

for both studies reported using assessments of body function. Neither study found that occupational therapists were using assessments that evaluate occupational performance or considered evaluating what the student might report as important. Thus it seems that occupational therapists are not using the occupation-based, top-down reasoning that is advocated for by the AOTA (2002) or theoretical perspectives presented by Kielhofner (1997) or Fisher (1998). Pat was the only therapist interviewed who questioned her focus on handwriting and the tools that she used. Furthermore, she expressed a desire to have a "broader scope for OT in schools in general." Pat was the only therapist to articulate a desire to think beyond a focus of body function and limited skills. It could be that her more recent occupational therapy education had emphasized occupation-based theory and practice. The other occupational therapists interviewed all received their occupational therapy education in an era in which body function was emphasized.

Although it was a limited sample of therapists it appeared that therapists with greater number years of service had a larger repertoire of evaluation tools from which to choose. The therapist with only 4 years of experience only talked about using 2 assessment tools, the *VMI* and *The Handwriting Screen*. The others identified using eight or more assessment tools. However, in all instances there was an emphasis on the use of informal assessment methods such as observation, particularly in the classroom, talking with the teacher, and reviewing the student's file. Interestingly though, Pat, the therapist with the least amount of

experience, was the only therapist who articulated her reason for using a specific assessment tool as being supported by evidence based practice. Again, her reasoning and consideration of evidence might have been influenced by her more recent occupational therapy education.

The six therapists interviewed in this research used their assessment findings to inform the student's individualized education program team and guide their intervention decisions. Assessment information was summarized and students' functional limitations were presented to the teams to help identify the how the body functions assessed impact a student's performance within the classroom. Assessment findings were instrumental in assisting the occupational therapists to identify student strengths as well as needs, write student goals and objectives, and suggest accommodations and modifications to support schoolwork performance. In addition, the assessment data allowed several therapists to advocate for their students within the school and beyond. Each therapist remained focused on how to best support their student's functioning and to support his or her functioning in school.

Because the occupational therapists in this study selected assessment tools to address the questions that the team had about a student, they were in essence choosing tools that would be considered in the team's decisions regarding services. For example, Chris's use of the Motivational Survey resulted in her adjusting a sensory diet to meet her student's needs. Lisa's use of the

ETCH supported the need for short term, direct occupational therapy services focusing on handwriting for her student.

The second research question related to understanding how the team of other professionals influences decisions for occupational therapy services. Giangreco (1997) and Barnes and Turner (2001) had emphasized the influence of team members on all decisions for special education services. The findings from this study support the strong influence of the team. This group of occupational therapists articulated the importance of the team approach with their pre-referral, referral, and evaluation sharing processes. Throughout all aspects of decision-making, the therapists discussed collaborating with team members. They gathered information to help determine the focus of their assessment. They shared information based on what they thought the respective team members needed. Finally, they made decisions regarding the type of occupational therapy service to best meet the needs of the student while considering the skills of other team members.

Although the majority of therapists interviewed described their service delivery model as primarily consultative, they described using a variety of treatment options from direct service to indirect over the school year. Their consideration of changing service delivery needs during the school year coincides with Knippenberg and Hanft's (2003) suggestion of not selecting a single service delivery model for an entire school year, but instead considering a flexible model that has direct hands on intervention integrated within school

activities with consultation and coaching for educational staff. The therapists in this study also reflect the recommendations of Swinth et. al. (2003) with their use of consultation as a viable service delivery model, consulting with teachers, other school personnel, and parents or caregivers, to provide a more on-going support for the student beyond the time the occupational therapist is with the student.

While the therapists interviewed did not directly discuss their use of theory to guide their thinking, the third research question, their responses can be analyzed for their use of theory. The occupational therapists in this study focused their assessments and their assessment tool usage on performance capacity and body function without taking into account how the student was performing within the school environment. The tests the therapists chose during the meeting with the team were focused on body function rather than student functioning within the school environment. Their strong use of observation supports assessing students' performance and not strictly body function.

The therapists appeared to be using a perspective that contrasts with the top-down, occupation-based approach when considering assessment options. Their approach does not support concepts from the OT Practice Framework (AOTA, 2002) or any theoretical models of practice such as the Model of Human Occupation (Kielhofner, 1997) or The Occupational Therapy Intervention Process Model (Fisher, 1998). The occupational therapists in this study did gather information about the student's school task performance by talking with teachers and staff and reviewed files to identify student interests and deficits. They

observed the student in his or classroom, but did not do a performance analysis from which to guide any additional assessments to support their analysis of the student's performance. The focus of their evaluation seemed to be on the use of the assessments of body function, not the observation of the student. None of the six therapists interviewed reported using assessment tools that support the top-down, occupation-based approach, such as the *School AMPS*, *School Function Assessment,* or *the Child Occupational Self Assessment (COSA).* They did report using a range of service delivery models, which are included in the OT Practice Framework (AOTA, 2002) and described by Dunn, Brown, & McGuigan (1994). The range of service delivery options are not unique to occupational therapy but are also supported by IDEA and embraced by other school personnel.

The perspective of this group of therapists might reflect the number of years in which they have practiced. Five of the six therapists in this study received their occupational therapy education prior to the introduction of occupation-based practice and the use of theory to guide practice. Furthermore, most entered school-based practice during the initial federal mandate which enabled occupational therapists to enter schools to support students' special education programming. At that time, individual services to remediate body-function issues was the practice of the time. It seems their perspective of practice has not changed from when they entered the school-based practice.

The school's protocol for determining specific assessments may also influence the reasoning and choice of tools for this group of therapists. In the district in which this group of therapists work, a therapist is asked to identify the assessment tools that she/her will use based on limited information about the student. In this school district, the team discourages adding assessment tools after the initial meeting in which all evaluations are determined. Additionally, team members become accustomed to occupational therapists using certain assessment tools and may influence continued use of these tools, making it challenging for the occupational therapist to suggest other tools.

While there are challenges for changing practice, occupational therapists need to advocate for current theoretical thinking about best practice. This includes using assessment methods and tools that are occupation-based, with a focus on the student's performance in the classroom and throughout the school day, not on body function. We need to continue to expand our use of assessment tools to include those that are standardized, and have strong psychometric properties, to contribute to evidence-based practice. Future research questions might include how occupational therapists learn about emerging theory and documents to guide practice and also new assessment tools that support such theoretical perspectives. Future research might explore how occupational therapists, such as Pat, might address barriers and change practice, particularly when decisions are made as a team. A comparative study could be completed to explore the reasoning of master therapists (therapists with

greater than 10 years experience) practicing in schools versus newer therapists practicing in schools.

The limitations of the study include the study being based on a small convenience sample of therapists in one geographical region in a Midwest state. The therapists were asked to discuss one student and the student chosen may not have fully reflected their practice. Additionally, the sample size was small and included primarily therapists who had similar length of experience. The interpretation of these few interviews cannot be transferred to the idea of other occupational therapists working in school-based practice.

CHAPTER VI

REFLECTIONS

As I reflect on the body of research that I have read and my journey and exploring occupational therapy in the schools, I wonder how this has changed me as a therapist. I feel that, like the majority of the therapists in the study, I have grown as a therapist with experience and as time goes on I have a wider and deeper breadth of knowledge to bring to the table during collaboration to benefit students in the educational environment. I feel that I need to represent the changing profession and help my colleagues to continue to move beyond just handwriting and sensory integration, and into function.

As I continue to evolve with my practice, I see myself as growing beyond current practices in many schools. Just as the Occupational Therapy Framework has evolved from the days of Uniform Terminology, I too have grown to look at students in a more functional light.

Exploring the trends, best practices and bank of knowledge revolving around evidence-based practice has helped me to be a more efficient therapist that uses not just what feels right in my heart but to also use my head to execute what has been shown to be most effective in the literature. In my research, I am affirmed by the knowledge that there is a defined way to assess and look at student functioning that is supported by our professional governing bodies.

The growth that has occurred within me has resulted in my clinical judgment becoming more based on research and knowledge as opposed to an historical perspective (or the way things have always been done) and feelings. Therapists do need to continue to do what they feel is right in order to best serve the student. However, the feelings need to be rooted in evidence based practice and demonstrate a strong theoretical foundation with a framework to build upon. As with the human body or any structure, one needs a strong foundation, and a sturdy framework to create something that is well-built and can stand the test of time.

Considering school-based therapy accounts for over one third of our profession, we need to make sure that we keep up with the times and define who we are as therapists and what we are as a profession. Occupational therapists can make the difference in the lives of the children, families and communities they serve. In that vain, we need to make sure we are accurately representing who we are, what we can do, and the unique perspective we bring to each group we are a part of.

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APPENDICES

APPENDIX A

University *of* New Hampshire

Research Conduct and Compliance Services, Office of Sponsored Research
Service Building, 51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

23-Oct-2007

Griswold, Lou Ann
Occupational Therapy
Hewitt Hall
Durham, NH 03824

IRB #: 3795
Study: Exploring Decision Making by Occupational Therapists in a School Setting
Review Level: Expedited
Approval Expiration Date: 09-Oct-2008

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved your request for time extension for this study. Approval for this study expires on the date indicated above. At the end of the approval period you will be asked to submit a report with regard to the involvement of human subjects. If your study is still active, you may apply for extension of IRB approval through this office.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the document, *Responsibilities of Directors of Research Studies Involving Human Subjects*. This document is available at http://www.unh.edu/osr/compliance/irb.html or from me.

If you have questions or concerns about your study or this approval, please feel free to contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,

Julie F. Simpson
Manager

cc: File
Ericksen, Judy
Backes, Jason

APPENDIX B

Guiding Discussion Questions

Introduction:
We are exploring how occupational therapists make decisions for occupational therapy services for children in the school setting. Think of a child whom you recently assessed and for whom you have completed the IEP planning process (have written objectives and parents have signed the IEP). That child will be the one to think about as you discuss your thinking process today. So that we maintain student confidentiality, please do not the student's last name and if you can, use a different name for the student and any other people whom you refer to by name.

Demographic Information:
Prior to beginning the discussion, the following demographic information needs to be obtained from each person.

- Are you an OT or OTA?
- How many years have you been an occupational therapy practitioner?
- How many years have you been working as an OT in school-based practice?
- Describe your district's service delivery model.
- What assessment tools do you have special training/certification/calibration to give and how when did you do that training?

❖ First, share a little bit about the referral information that you received on this student.

❖ Based on that information, what did you want to do/use for your evaluation?

- Why did you choose that/those instruments? What did you hope to learn about the student from these?

- How were you planning to use the assessment information? (e.g., contribute to baseline performance, service delivery, goal setting)

- Based on the assessments that you used and the results, what other information did you want to gather and what did you do to obtain that information (another assessment tool)?

- Did you follow up and gather more assessment data? What did you use?

- Why did you choose that/those instruments? What did you hope to learn about the student from these?

- How were you planning to use the assessment information? (e.g., contribute to baseline performance, program planning, goal setting)

- When you were writing your report, who was your target audience and what message were you trying to convey to that person(s)?

  - How did your assessment data support your intended message?

- During the team meeting, what did you focus on when sharing your evaluation data to the team?

  - Comment on any difference in verbal versus discussed written report and prompt for elaboration on this difference.

- How did the team respond to your evaluation information? What discussions occurred as a result of the occupational therapy information?

- What did the team decide the student needed for occupational therapy services?

  - Tell us about the discussion that took place, who proposed the initial intervention decision? What did others say about OT services?

  - How did the outcome differ from what you expected?

- Describe what you plan on doing for intervention with this student.

  - How did you determine that this was the approach to use with this student?

  - How similar/different is this approach to what you use with other students?

  - Reflect on the theoretical orientation as needed to prompt further discussion.

- Would there be any other assessment tools that you would consider using looking back on what you know of this student now?